

SEQUENCE LISTING

<110> AKZO Nobel N.V.

<120> Lawsonia intracellularis 26 kD subunit vaccine

<130> 2003.023

<160> 2

<170> PatentIn version 3.2

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<211> 856

<212> DNA

<213> Lawsonia intracellularis

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<221> CDS

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                Met Lys Lys Leu Leu Leu Leu Leu Ser Ile Leu
                1                5                10

ttt cta acc cca agt att acc ttg gcg gaa ggt aat act ttc aat gat      160
Phe Leu Thr Pro Ser Ile Thr Leu Ala Glu Gly Asn Thr Phe Asn Asp
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agt ttc aac aag gct aag cgc ata ctg caa gat gag gtg tat tac gac      208
Ser Phe Asn Lys Ala Lys Arg Ile Leu Gln Asp Glu Val Tyr Tyr Asp
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cac caa gtt aca cta tac tgc gga tat gaa tat gat gac caa aaa agg      256
His Gln Val Thr Leu Tyr Cys Gly Tyr Glu Tyr Asp Asp Gln Lys Arg
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ata tgt ctc cct gat gga ttt ata gca gag aaa cat caa aaa aga tca      304
Ile Cys Leu Pro Asp Gly Phe Ile Ala Glu Lys His Gln Lys Arg Ser
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tat aaa att gag tgg gaa cat agt gtg cct gct gag aat ttt ggc aga      352
Tyr Lys Ile Glu Trp Glu His Ser Val Pro Ala Glu Asn Phe Gly Arg
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gct ttt act gaa tgg cgc gaa ggt cat cct ctt tgt gta gat aat aaa      400
Ala Phe Thr Glu Trp Arg Glu Gly His Pro Leu Cys Val Asp Asn Lys
                95                100                105

ggt aaa agt ttc aaa gga cga aaa tgt gca gaa aaa gta aat aaa aca      448
Gly Lys Ser Phe Lys Gly Arg Lys Cys Ala Glu Lys Val Asn Lys Thr
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tat aga tat atg cag tct gat atg tac aat ttg ttt cca gca gtc ggg      496
Tyr Arg Tyr Met Gln Ser Asp Met Tyr Asn Leu Phe Pro Ala Val Gly
                125                130                135

tct gtc aat gct gcg aga agc aat aag caa tac tca gag tta ctt gga      544
Ser Val Asn Ala Ala Arg Ser Asn Lys Gln Tyr Ser Glu Leu Leu Gly
140                145                150                155

gtt caa tct gct ttt gga acg tgt gag gca aaa ata gat ggg aat aga      592
Val Gln Ser Ala Phe Gly Thr Cys Glu Ala Lys Ile Asp Gly Asn Arg
                160                165                170

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ttc gaa cca ccg gat aga gct aaa ggt caa gta gcc cgt gct gct ctt 640
 Phe Glu Pro Pro Asp Arg Ala Lys Gly Gln Val Ala Arg Ala Ala Leu
 175 180 185
 tat atg gat aaa gag tac aag gaa tac aat cta agt cgt cag caa aga 688
 Tyr Met Asp Lys Glu Tyr Lys Glu Tyr Asn Leu Ser Arg Gln Gln Arg
 190 195 200
 aga ctt ttt gag gct tgg agt aat atg tat cca gtc gat gaa tgg gag 736
 Arg Leu Phe Glu Ala Trp Ser Asn Met Tyr Pro Val Asp Glu Trp Glu
 205 210 215
 tgt aca cga gcc aaa cga atc gaa tct ata cag gga aat gaa aat att 784
 Cys Thr Arg Ala Lys Arg Ile Glu Ser Ile Gln Gly Asn Glu Asn Ile
 220 225 230 235
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 Lys Arg Ile Leu Gln Asp Glu Val Tyr Tyr Asp His Gln Val Thr Leu
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 Tyr Cys Gly Tyr Glu Tyr Asp Asp Gln Lys Arg Ile Cys Leu Pro Asp
 50 55 60
 Gly Phe Ile Ala Glu Lys His Gln Lys Arg Ser Tyr Lys Ile Glu Trp
 65 70 75 80
 Glu His Ser Val Pro Ala Glu Asn Phe Gly Arg Ala Phe Thr Glu Trp
 85 90 95
 Arg Glu Gly His Pro Leu Cys Val Asp Asn Lys Gly Lys Ser Phe Lys
 100 105 110
 Gly Arg Lys Cys Ala Glu Lys Val Asn Lys Thr Tyr Arg Tyr Met Gln
 115 120 125
 Ser Asp Met Tyr Asn Leu Phe Pro Ala Val Gly Ser Val Asn Ala Ala
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 Arg Ser Asn Lys Gln Tyr Ser Glu Leu Leu Gly Val Gln Ser Ala Phe

145 150 155 160

Gly Thr Cys Glu Ala Lys Ile Asp Gly Asn Arg Phe Glu Pro Pro Asp
 165 170 175

Arg Ala Lys Gly Gln Val Ala Arg Ala Ala Leu Tyr Met Asp Lys Glu
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Tyr Lys Glu Tyr Asn Leu Ser Arg Gln Gln Arg Arg Leu Phe Glu Ala
 195 200 205

Trp Ser Asn Met Tyr Pro Val Asp Glu Trp Glu Cys Thr Arg Ala Lys
 210 215 220

Arg Ile Glu Ser Ile Gln Gly Asn Glu Asn Ile Phe Val Lys Asn Met
225 230 235 240

Cys Ile Glu Lys Gly Leu Trp
 245